

Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in the application:

Listing of Claims:

Claim 1 (Currently Amended): A self-expanding stent delivery system comprising:

a substantially tubular shaft having a proximal end, a distal end, a guidewire lumen extending between the proximal and distal ends, and a stent bed proximate the distal end upon which ~~the~~ a self-expanding stent is positioned; and

a substantially tubular sheath defining an interior volume and coaxially positioned over the tubular shaft and stent, the tubular sheath including an outer polymeric layer and a substantially impenetrable and lubricious inner layer, the inner layer comprising pyrolytic carbon.

Claim 2 (Original): The self-expanding stent delivery system according to Claim 1, wherein the outer polymeric layer comprises Nylon®.

Claim 3 (Cancelled)

Claim 4 (Currently Amended): The self-expanding stent delivery system according to Claim 3 1 wherein the pyrolytic coating carbon is affixed directly to the polymeric layer.

Claim 5 (Currently Amended): The self-expanding stent delivery system according to Claim 3 1, wherein the pyrolytic coating carbon is affixed to a substrate, the substrate being affixed to the polymeric layer.

Claim 6 (Original): The self-expanding stent delivery system according to Claim 1, wherein the substantially impenetrable and lubricious inner layer is affixed to the outer polymeric layer along the entire length of the tubular sheath.

Claim 7 (Original): The self-expanding stent delivery system according to Claim 1, wherein the substantially impenetrable and lubricious inner layer is affixed to the outer polymeric layer along the length of the tubular sheath proximate the stent bed.

Claim 8 (Currently Amended): A self-expanding stent delivery system comprising:

a substantially tubular shaft having a proximal end, a distal end, a guidewire lumen extending between the proximal and distal ends, and a stent bed proximate the distal end upon which a self expanding stent is positioned; and

a substantially tubular sheath defining an interior volume and coaxially positioned over the tubular shaft and stent, the tubular sheath including an outer polymeric layer and a substantially impenetrable and lubricious inner layer, The self expanding stent delivery system according to Claim 1, wherein the substantially impenetrable and lubricious inner layer comprises ceramic coatings.